Department of Toxic Substances Control

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November 3, 2005

Mr. Arthur J. Lenox
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DEPARTMENT OF TOXIC SUBSTANCES CONTROL (DTSC) APPROVAL OF THE STANDARDIZED RISK ASSESSMENT METHODOLOGY WORK PLAN, REVISION 2 (SEPTEMBER 2005) FINAL, SANTA SUSANA FIELD LABORATORY, VENTURA COUNTY, CALIFORNIA

Dear Mr. Lenox:

DTSC has reviewed the Standardized Risk Assessment Methodology Work Plan Revision 2 Final (SRAM Final) dated September 2005. The SRAM Revision 2 Final supersedes the original SRAM (Ogden 2000) approved by DTSC in June 2000. The SRAM Work Plan describes the methods to be used to conduct human health and ecological risk assessments for chemical contamination of the Surficial Media Operable Unit (Surficial OU) and Chatsworth Formation OU (CFOU) at the Santa Susana Field Laboratory (SSFL).

The SRAM Final has been updated and revised at the request of DTSC. The revision expands on and provides additional information to supplement the original SRAM. These include the following:

1. Metals Background Data Set – Additional soil samples have been collected at previously DTSC-approved background sample locations to supplement the existing metals background data set approved in the 2000 SRAM. These samples were collected to augment missing analyses from some background sample locations, replace sample data that had elevated sample detection limits, and provide analytical results for new metals needed for the RCRA

Facility Investigation (RFI). The new data will support the RFI and RFI risk assessment for metals. Additional DTSC review of the background data in 2004/2005 resulted in modifications of the data set. One sample was removed due to differing geologic conditions for onsite evaluations. The DTSC Geological Services Unit (GSU) and Human and Ecological Risk Division (HERD) provided input on the selection of comparison values for both metals and dioxins and statistical approaches for selecting chemicals for evaluation in the risk assessment.

2. Groundwater Comparison Concentrations – The Groundwater Comparison Concentrations were developed to assist in site characterization and risk assessments for the ongoing RCRA Corrective Action Program at SSFL. A background groundwater data set was not derived at this time for SSFL. It was observed that metals analyses from some wells collected early in the investigation had elevated detection limits and for some metals represented the only analyses available. During the evaluation, all potentially elevated data or impacted concentrations were removed from the dataset in establishing the Groundwater Comparison Concentrations. Based on data available to date, the Groundwater Comparison Concentrations are conservatively derived and represent a range of metal concentrations expected to occur naturally at the site and are at or below the maximum background concentrations. For characterization purposes, the Groundwater Comparison Concentrations will be used as one factor in evaluating whether groundwater quality may have been impacted and if further characterization is needed. In both the human and ecological risk assessments, the Groundwater Comparison Data Set and Comparison Concentrations will be used in the selection of chemicals of potential concern or chemicals of potential ecological concern. Based on data evaluation supporting corrective action or closure/post closure processes, establishment of groundwater background values for one or more constituents may be required. Background ranges will be established based on review of available data, and include additional data obtained from locations across the facility that are representative of ambient conditions.

3. Vapor Migration Modeling Methodology – The vapor migration modeling methodology presents mathematical equations which will be used to model volatile organic compound (VOC) migration into outdoor and indoor air from soil and groundwater concentrations. The vapor migration models are based

on scientific equations that predict the presence of vapors in the environment. The uncertainty associated with the application of these models to specific conditions at SSFL will be evaluated by a Field Validation Study that will characterize select portions of SSFL that are representative of the various types of conditions that exist and are relevant to the potential vapor migration and air dispersion of VOCs. A Workplan that describes the scope of the field validation study is to be submitted within 60 days of the date of this letter to DTSC for review and approval.

The SRAM Final dated September 2005, is hereby approved by DTSC. Any errors and omissions to the document noted later in the risk assessment process will be documented in technical memoranda from DTSC. These technical memoranda will be considered amendments to the SRAM and as such will accompany the SRAM in the administrative record. If you have any questions, please contact me at (916) 255-3600.

Sincerely,

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Gerard Abrams
Project Manager

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